

## ABSTRACT

A technique for determining an offset-reduced Hall voltage ( $U_h$ ), and/or an offset voltage ( $U_{h, \text{offset}}$ ) of a Hall sensor (1) includes applying a Hall sensor current ( $I$ ) at first and second taps ( $a_1, a_2, a_3$ ) of the Hall sensor (1), and determining a first Hall voltage ( $U_{h1}$ ) at third and fourth taps ( $a_3, a_4$ ) displaced from the first and second taps ( $a_1, a_2, a_5$ ). A second Hall sensor current is applied modified relative to the first, and a second Hall voltage ( $U_{h2}$ ) is determined. The Hall voltage ( $U_h$ ) and/or Hall voltage offset ( $U_{h, \text{offset}}$ ) are determined from the first and second Hall voltages. To compensate any offset present, a second measurement applies the second Hall sensor current  $I$  at taps ( $a_3, a_4$ ) that are spatially displaced relative to the first and/or second taps.